

REMARKS

It is noted that the Office Action states claims 1-23 are pending in the application. Claim 14 was deleted by Applicants previously and is not addressed herein. For the purposes of this response, claims 1-13 and 15-23 are considered pending.

Claims 1-13, 15-17 and 21 are rejected under 35 U.S.C. 102(b) based on the "rejection set forth in the prior Office Action paper number 5". Upon review of the prior Office Action, Applicant assumes the 35 U.S.C. 102(b) rejection referred to in the present Office Action rejects claims 1-13 and 15-20 as being anticipated by Nagarajan et al. (U.S. Patent No. 5,755,930) further evidenced by Satterfield et al. (U.S. Patent No. 5,755,930) and claims 1-7, 11, 13 and 15-20 as being anticipated by Pearson et al. (U.S. Patent No. 5,466,338) also further evidenced by Satterfield. Both of these rejections are respectfully traversed.

It is admitted that both Pearson and Nagarajan are silent as to conductivity and content of di- and multivalent cations. Satterfield is offered as evidence that the conductivity of papermaking pulp "nowadays" in "all or at least most" such pulps have conductivity and uni- and multivalent ions within the range claimed by the present invention. It is further stated that Satterfield "clearly show" that in closed systems "as they are nowadays" the conductivity and ions are within the claimed range. Thus, it is asserted that the conductivity claimed by the present invention is inherent in the Pearson and Nagarajan invention.

As a first point, the Applicant respectfully requests a clarification as to how "nowadays", as used in the Office Actions, should be defined. Does "nowadays" mean (1) the date of the Office Actions; (2) year 2000, the filing date of the present application; (3) year 1994, the filing date of the parent application to Satterfield; (4) year

1993, the first filing date of Pearson; (5) year 1996, the filing date of Nagarajan; or (6) a combination of any or all of these years?

Additionally, the Examiner is respectfully requested to point out in Satterfield where it is stated that "all or at least most" of papermaking pulps have a high conductivity or even are considered to be dirty suspensions, as defined in Satterfield. Indeed, if this were the case, why would Satterfield set forth measuring conductivity as the analytical technique for indicating whether a suspension was a preferred suspension (i.e., a dirty suspension)? Satterfield does not teach that the conductivity of recycled water "is usually above 3,000 micro Siemens". Satterfield, at best, merely shows that dirty suspensions can be such that white water has the conductivity preferred by Satterfield (emphasis added - see col. 4, line 60 and 61).

Although Applicant recognizes that certain characteristics of a prior art reference may be shown to be inherent to the disclosure through the use of extrinsic evidence, it is equally true that any such extrinsic evidence must show the inherent feature is necessarily present in the reference, not just possibly or probably present. See *In re Oelrich*, 666 F.2d 578,581, 212 USPQ 323, 326 (CCPA 1981). This is simply not established by the teachings in Satterfield.

Claims 18-20, 22 and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by or, in the alternative, under 35 U.S.C 103(a) as being obvious over Nagarajan et al. (European Patent No. 0 805 234 A2). Claims 18-20, 22 and 23 are also rejected under 35 U.S.C. 102(b) as being anticipated by or, in the alternative, under 35 U.S.C 103(a) as being obvious over by Pearson et al. (U.S. Patent No. 5,466,338). Both of these rejections are also respectfully traversed.

Pearson discloses dispersion polymers useful for coagulating and retaining white pitch and does not teach, suggest, or disclose suspensions having a content of di- and multivalent cations of at least 200 ppm nor recirculation of white water together with an introduction of fresh water in an amount less than 30 tons per ton of dry paper produced. As admitted in the Office Actions and discussed above, Pearson also does not disclose conductivity of cellulose fiber suspensions. The problems solved by Pearson are the problems in connection with recycling of coated broke and sticky deposits referred to as "white pitch". Pearson does not mention any problems in connection with high conductive suspensions and there is no hint at recycling white water and therefore no disclosure of any introduction of fresh water in an amount less than 30 tons per ton of dry paper produced.

The papermaking process of Nagarajan is applicable for use on all types of pulps (see page 3 lines 41 to 45) and is best suited for use on chemical pulps. As admitted in the Office Actions and discussed above, Nagarajan does not mention conductivity or any problems involved with high conductive stocks and Nagarajan is silent about any suspensions having a content of di- and multivalent cations of at least 200 ppm. Nagarajan does not mention white water closure of paper mills. Nagarajan does not disclose any fresh water introduced into the system, but discloses that the test stock contained formulation water, which contained 60 ppm calcium hardness (added as  $\text{CaCl}_2$ ), 18 ppm magnesium hardness (added as  $\text{MgSO}_4$ ) and 134 ppm bicarbonate alkalinity (added as  $\text{NaHCO}_3$ ).

Therefore, one of ordinary skill in the art would not have any incentive to optimize any introduction of fresh water into high conductive stocks since there is no teaching or mentioning either expressly or inherently (as discussed above) of high conductive stocks by Pearson or Nagarajan, nor an indication of any benefits of the drainage and retention aid on high conductive stocks.

There is nothing disclosed, taught or suggested by Pearson or Nagarajan that would provide any incentive for the skilled person to develop a process wherein an

cationic polymer having an aromatic group is used as retention and drainage aid in a process where fresh water is introduced in an amount less than 30 tons per ton of dry paper produced.

A Rule 132 Declaration, made by Hans Hällström, a co-inventor of the subject application, was previously submitted to show conductivity levels of aqueous cellulosic suspensions that have been measured for 20 European, North American and Japanese paper machines which are commercially producing different grades of paper from different furnishes in papermaking processes comprising white water recirculation. The measured conductivity levels of aqueous papermaking suspensions were within the range of from 0.5 to 5.0 mS/cm, the majority of these conductive levels of the suspensions from the paper mills were in the region of 0.5 to 1.8 mS/cm, which are below 2.0 mS/cm. The highest levels of the conductive are the result of white water closure of the mills. By the time of the invention closure of the mills was not usual. As can be seen from the Declaration, a furnish containing recycled fibers could have either low or high conductive levels 1.0 mS/cm vs. 5.0 mS/cm (see furnish Nos. 2 and 19).

However, this Declaration was deemed unconvincing in view of Jonsson, Panchappakeasan, Guss and U.S. Patent No. 6,071,380. Applicants note that Guss was published in 1978, Panchappakeasan was published in 1994, and U.S. Patent No. 6,071,380 is based, at least in part, on a parent application first filed in 1994. There is no date on the Jonsson reference, but on page 64 of this reference, the year 1985 is referred to in the future tense and Applicant therefore presumes that it was published prior to 1985. It is unclear how references discussing the state of the industry anywhere from 22 to 6 years prior to the filing of the present application is considered indicative of the state of the industry at the time of filing, especially in view of the more current data submitted in the Rule 132 Declaration.

Therefore, as set forth above, the claimed invention is not anticipated by Pearson or Nagarajan and is non-obvious over Pearson or Nagarajan.

The Applicants respectfully request that the Examiner reconsider the rejection of claims 1-13 and 15-23 and find the claims in condition for immediate allowance.


In accordance with Section 714.01 of the M.P.E.P., the following information is presented in the event that the Examiner deems a call desirable:

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Respectfully submitted,

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